

ICOM

VHF AND UHF TRANSCEIVERS

IC-V82 144MHz

IC-U82 430(440)MHz



## High Power! Digital Capability! Power to Go Anywhere!

### Optional digital unit, UT-118

The optional UT-118 provides D-STAR format digital voice and slow data communication. The UT-118 includes the following digital features.

#### Callsign calling

In the digital mode, your callsign and the receiving callsign (or CQ message) are included in each transmission. The callsign squelch allows you to choose an incoming call selected by the callsign. Also, received callsigns are automatically stored in the memory.

#### Position exchange with external GPS receiver

When connected to an external GPS receiver\*, position information can be exchanged with other stations. When the receiving side is connected to a PC\*\*, position monitoring is possible.

\* NMEA 0183 output and RS-232C interface are required.

\*\* Position mapping software required (Not supplied by Icom).

#### And more digital features

- 20-character short data message
- Digital code squelch
- Digital pocket beep
- EMR communication
- Stand-by beep

### 7W powerful output power

A powerful 7W\* output power provides superior transmit power. All this power is available with the supplied battery pack. Reduced power settings also allow you to adapt to the communication conditions and provide longer operating time.

\* 5W for UHF.

### 200 memory channels and 10 memory banks

Up to 200 regular memory channels can be stored with a 6-character channel name, tone and duplex settings. The memory channels can be tagged with A-J bank name and allows you easy channel management. In addition, use Icom's exclusive DMS (Dynamic Memory Scan) system to scan selected memory banks by simply adding and deleting bank links.

### Built-in CTCSS/DTCS

Built-in CTCSS/DTCS tone codes provide quiet stand-by and allow you to access a closed repeater. The pocket beep alerts you when a matched tone frequency is received. The tone scan detects the tone frequency used in the receiving frequency.

### Other features

- NOAA weather channel receive \* (\* IC-V82 USA version only)
- Automatic repeater function (USA version only)
- Reversible control knob and up/down buttons assignment
- Durable construction and simple operation
- 16 DTMF dial memory
- PC cloning capability

Icom Inc.



## SPECIFICATIONS

## GENERAL

## • Frequency coverage (unit : MHz):

Version	IC-V82	IC-U82
USA	Tx 144-148 Rx 136-174 <sup>*1</sup>	Tx 420-450 <sup>*2</sup> Rx 400-479 <sup>*2</sup>
Europe	144-146 430-440	

Guaranteed range <sup>\*1</sup> 144-148MHz, <sup>\*2</sup> 440-450MHz

- Mode : F3E, F2D, F7W<sup>\*</sup>  
<sup>\*</sup> Optional UT-118 required.
- No. of memory Ch. : 207 (incl. 6 scan edges and 1 call)
- Operating Temp. range : -10°C to +60°C; +14°F to +140°F
- Frequency stability : ±2.5ppm (-10°C to +60°C)
- Power supply : 7.2V DC (6.0-10.3V DC accept-requirement  
able; Icom's battery pack only)
- Current drain (at 7.2V DC):

		IC-V82	IC-U82
Tx	High (7W/5W)	2.6A	2.0A
	Max. audio	250mA	250mA
Rx	Standby	80mA	80mA
	Power save	30mA	30mA

- Antenna impedance : 50Ω (BNC)
- Dimensions (W×H×D) : 54 × 139 × 36.7 mm;  
(Projections not included) 2 1/8 × 5 1/8 × 1 1/8 in
- Weight (approx.) : 390g; 13.8oz (w/ant. and BP-222N)

## TRANSMITTER

- Output power (at 7.2V DC):  
IC-V82 7.0/4.0/0.5W (High/mid/low)  
IC-U82 5.0/2.0/0.5W (High/mid/low)
- Spurious emissions : Less than -60dBc
- Max. freq. deviation : ±5.0/±2.5kHz (Wide/narrow)
- External microphone : 3-conductor 2.5(d)mm (1/10")  
connector /2.2kΩ

## Supplied accessories

- Battery case or battery pack<sup>\*</sup>
- Desktop charger<sup>\*</sup>
- Antenna
- Belt clip

<sup>\*</sup>depending on version

## RECEIVER

- Receiving system : Double conversion super-heterodyne
- Intermediate freq. : 46.35MHz/450kHz (1st/2nd)
- Sensitivity : 0.16μV (typ.; at 12dB SINAD)
- Squelch sensitivity : 0.11μV (typ.; threshold)
- Selectivity : More than 55/50dB (wide/narrow)
- Intermodulation : 65dB (typ.)
- Spurious and image rejection : 80dB (typ.; VHF)  
70dB (typ.; UHF)
- Audio output power : 300mW with an 8Ω load
- Ext. speaker connector: 3-conductor 3.5(d)mm (1/8")/8Ω
- Ext. Data connector : 3-conductor 2.5(d)mm (1/10")

All stated specifications are subject to change without notice or obligation.

## OPTIONS

**BP-208N** AA (LR6) batteries × 6

**BP-209N** Ni-Cd 7.2V/1100mAh

**BP-210N** Ni-MH 7.2V/1650mAh

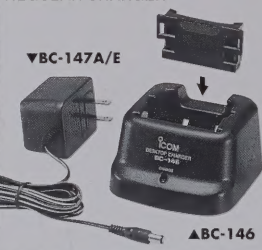
**BP-211N** Li-Ion 7.4V/1800mAh

**BP-222N** Ni-Cd 7.2V/600mAh

BATTERY PACKS AND CASE	BP-208N	BP-209N	BP-210N	BP-211N	BP-222N
BATTERY VHF (7W)	—	3 h 20 min	6 hours	6 h 10 min	2 h 15 min
LIFE UHF (5W)	—	3 h 40 min	7 hours	8 h 15 min	2 h 50 min

Battery life is approx. time; Tx (Hi): Rx: standby=1:1: 8 power save function when set at auto.

## REGULAR CHARGER



## BC-146 DESKTOP CHARGER + BC-147A/E AC ADAPTER

Charges the Ni-Cd or Ni-MH battery pack, BP-209N, BP-210N, BP-222N with/without transceiver in 12, 18.5, 6.5 hours (approx.), respectively. The BC-147 AC adapter is additionally required. Cannot charge Li-Ion battery pack, BP-211N.

## RAPID CHARGERS



## BC-144N DESKTOP CHARGER + BC-145A/E/V AC ADAPTER

For rapid charging of battery pack, BP-209N, BP-210N or BP-222N. An AC adapter, BC-145, is supplied with the charger depending on version. Charging time: 1.5 to 2 hours. Cannot charge Li-Ion battery pack, BP-211N. BC-119N+AD-101+BC-145A/E/V Rapidly charges BP-211N as well as other battery packs.

## BC-121N MULTI-CHARGER + AD-101 CHARGER ADAPTER + BC-124 AC ADAPTER

For rapid charging of up to 6 battery packs (including BP-211N) in 1.5 to 2 hours. Six AD-101s are required. OPC-656 DC POWER CABLE; For use with the BC-121N. (12-20 V DC required)

## SPEAKER-MICROPHONES

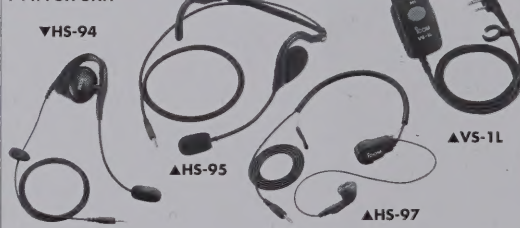


HM-75A : Allows you to remotely select operating channel, etc., according to program.

HM-131L : Compact and durable body. Equipped with an earphone jack and a revolving clip.

HM-128L : Lightweight earphone-microphone.

## HEADSETS and PTT/VOX UNIT



HS-94 : Earhook headset with flexible boom microphone.

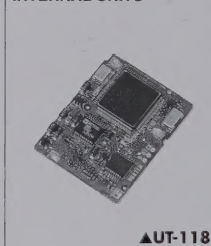
HS-95 : Behind-the-head headset with flexible boom microphone.

HS-97 : Throat microphone fits around your neck and picks up speech vibration.

VS-1L : PTT/VOX unit. Required when using these headsets with the transceiver.

HS-85 : For hands-free operation. Includes VOX, PTT and "one-touch" PTT with a time-out timer.

## INTERNAL UNITS



UT-108 DTMF DECODER

Provides DTMF decode and pager capabilities.

UT-118 DIGITAL UNIT

Provides digital voice and data capability at 4.8Kbps (Voice + Data).

## CS-V82 CLONING SOFTWARE + OPC-478/U CLONING CABLE

Provides quick and easy programming of memory channel, names, etc. OPC-478U is USB cable type.

## OPC-474 CLONING CABLE

Use for transceiver-to-transceiver data cloning.

## MB-86/MB-103 BELT CLIPS

MB-103: Alligator type clip.

Same as supplied.

MB-86: Swivel belt clip.

## MB-96N/MB-96F LEATHER BELT HANGERS

MB-96N: Swivel belt hanger.

MB-96F: Fixed type belt hanger.

Use with MB-103.

## SP-13 EARPHONE

Provides clear audio even in noisy environments.

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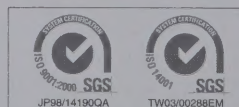
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Icom Inc. (Japan), is an ISO 9001 and ISO 14001 certification acquired company.

Your local distributor/dealer:





HF ALL BAND TRANSCEIVER

# IC-718



## Advanced HF Features in a Compact Package

### For beginning or experienced hams

The easy-to-use IC-718 makes exploring the exciting, long distance HF bands simple. Every front panel key and dial is large and well spaced, to help avoid accidental input. Use the triple band stacking register to "remember" your last used frequency on different bands (it's great when contesting or multi-banding). Quickly tune up or down a band with the main dial's auto tuning step feature, or direct enter a frequency using the 10 key pad.

### Superior features...

This rig is an exceptional value. An IF shift feature helps reject nearby interference. The adjustable microphone compressor lets you increase or decrease audio levels on the fly when working distant, weak stations. Talk hands-free with the VOX feature. You may install an optional IF filter for increased listening selectivity. CW enthusiasts will appreciate the built-in electronic keyer that features a variable dot/dash ratio, pitch, and key speed.

### ...and superior performance

A full 100 watts of adjustable output power\* keeps you on air for many hours, even during a several day-long contest. The double-conversion receiver features a 4-element mixer to help minimize image and spurious responses.

\*40 W AM

### Optional DSP capability

With the optional UT-106 installed, you can enjoy the superior receiver performance of Digital Signal Processing (DSP).

**Noise reduction:** offers super clean SSB and AM operation.

**Automatic notch filter:** minimizes "beat" signals and heterodynes.

### There's still more:

- Optional voice synthesizer (UT-102)
- Optional  $\pm 0.5$  ppm high frequency stability (CR-338)
- Level adjustable noise blanker
- RF attenuator
- 101 memory channels
- Optional antenna tuners
- Various scan types, and more...

**Icom Inc.**



## SPECIFICATIONS

## GENERAL

Frequency range	:	
Rx	:	0.030–29.999999 MHz*
Tx	:	1.800–1.999999 MHz*2 3.500–3.999999 MHz*2
	:	7.000–7.300000 MHz 10.100–10.150000 MHz
	:	14.000–14.350000 MHz 18.068–18.168000 MHz
	:	21.000–21.450000 MHz 24.890–24.990000 MHz
	:	28.000–29.700000 MHz

\*Guaranteed range: 0.5–29.999999 MHz

\*varies according to version

Mode	:	USB, LSB, CW, RTTY (FSK), AM
No. of memory Ch.	:	101 (99 regular, 2 scan edges)
Frequency resolution	:	1 Hz
Frequency stability	:	Less than $\pm 200$ Hz from 1 min. to 60 min. after power ON. After that rate of stability less than $\pm 30$ Hz/hr. at +25°C (+77°F). Temperature fluctuations 0°C to +50°C (+32°F to +122°F) less than $\pm 350$ Hz

Power supply requirement: 13.8 V DC  $\pm 5\%$  (negative ground)

Current drain (at 13.8 V DC):

Receive	Stand-by	1.3 A
	max. audio	2.0 A
Transmit	max. power	20.0 A

Operatable temp. range : -10°C to +60°C; +14°F to +140°F

Antenna connector	:	SO-239 (50 $\Omega$ )
Dimensions	:	240(W)×95(H)×239(D) mm (projections not included)
Weight (approx.)	:	9 $\frac{1}{8}$ (W)×3 $\frac{3}{4}$ (H)×9 $\frac{1}{32}$ (D) in 3.8 kg; 8 lb 6 oz
ACC connector	:	13-pin
REMOTE connector	:	2-conductor 3.5 (d) mm ( $\frac{1}{8}$ " )

## TRANSMITTER

Modulation system	:	SSB Balanced modulation
	:	AM Low level modulation
Output power	:	SSB, CW, RTTY 5–100 W
	:	AM 2–40 W
Spurious emissions	:	Less than -50 dB below peak output power

*spurious freq.; below 30 MHz: -50 dB, above 30 MHz: -60 dB	
• Carrier suppression	: More than 40 dB
• Unwanted sideband	: More than 50 dB
• Microphone connector	: 8-pin connector (600 $\Omega$ )
• KEY connector	: 3-conductor 6.5 (d) mm (1/4")
• SEND connector	: Phono (RCA)
• ALC connector	: Phono (RCA)

## RECEIVER

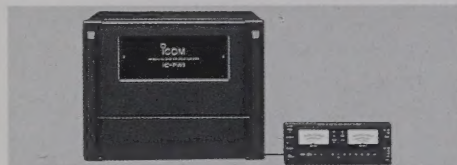
Receiver system	:	Double-conversion superheterodyne
Sensitivity (10 dB S/N)	:	SSB, CW, RTTY 0.16 $\mu$ V (1.8–29.999999 MHz)
	:	AM 13 $\mu$ V (0.5–1.799999 MHz)
	:	2 $\mu$ V (1.8–29.999999 MHz)
SQL sensitivity	:	Less than 5.6 $\mu$ V (SSB)
Selectivity	:	SSB, CW, RTTY More than 2.1 kHz/-6 dB
	:	AM Less than 4.5 kHz/-60 dB
	:	More than 6.0 kHz/-6 dB
	:	Less than 20 kHz/-40 dB
Spurious and image rejection ratio	:	More than 70 dB (1.8–29.999999 MHz)
Audio output power (at 13.8 V DC)	:	More than 2.0 W at 10% distortion with an 8 $\Omega$ load
RIT variable range	:	$\pm 1200$ Hz
PHONES connector	:	3-conductor 6.5 (d) mm ( $\frac{1}{4}$ " )
EXT SP connector	:	2-conductor 3.5 (d) mm ( $\frac{1}{8}$ " ) / 8 $\Omega$

## Supplied accessories:

Hand microphone	DC power cable
Spare fuses	

All stated specifications are typical and subject to change without notice or obligations.

## OPTIONS



**IC-PW1 HF+50 MHz 1 kW HF LINEAR AMPLIFIER**  
Covers all HF and 50 MHz bands, provides clean, stable 1 kW output. Automatic antenna tuner and compact detachable controller are standard. 2 exciter inputs are available. (An optional OPC-599 is required.)



**AH-2b ANTENNA ELEMENT**  
For mobile operation with the AH-4. All bands between 7–30 MHz can be matched.



**AH-4 HF+50 MHz AUTO-MATIC TUNER**  
Covers 3.5–30 MHz with a 7 m (23 ft) or longer wire antenna.



**AT-180 AUTOMATIC ANTENNA TUNER**  
Compact, light weight antenna tuner.



**PS-85 DC POWER SUPPLY**  
Output: 13.8 V DC (20 A max.)



**SM-20 DESKTOP MICROPHONE**  
High quality desktop microphone. Includes [UP]/[DOWN] switches and low cut function.



**SM-8 DESKTOP MICROPHONE**  
Equipped with 2 connection cables. [UP]/[DOWN] switches are included.



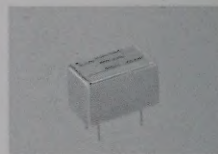
**SM-6 DESKTOP MICROPHONE**  
Electret condenser-type desktop microphone.



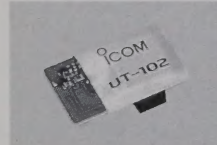
**HM-36 HAND MICROPHONE**  
Same as that supplied.



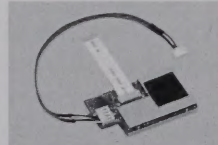
**CT-17 CI-V LEVEL CONVERTER**  
For remote transceiver control from a PC equipped with an RS-232C port.



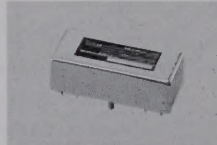
**CR-338 HIGH STABILITY CRYSTAL UNIT**  
Contains a temp. compensating heater for improved frequency stability. Frequency stability:  $\pm 0.5$  ppm



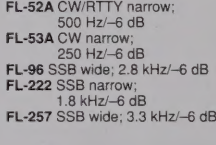
**UT-102 VOICE SYNTHESIZER**  
Announces the operating mode, frequency and signal strength level, etc.



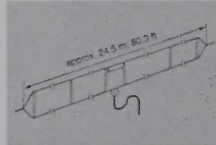
**UT-106 DSP UNIT**  
Provides AF DSP functions, such as noise reduction and auto notch.



**455 kHz FILTERS**  
Have good shape factor and provide you with better reception.



**FL-52A CW/RTTY narrow;**  
500 Hz/-6 dB  
**FL-53A CW narrow;**  
250 Hz/-6 dB  
**FL-96 SSB wide;** 2.8 kHz/-6 dB  
**FL-222 SSB narrow;**  
1.8 kHz/-6 dB  
**FL-257 SSB wide;** 3.3 kHz/-6 dB



**AH-710 FOLDED DIPOLE ANTENNA**  
Covers from 1.9 to 30 MHz band. Has a PL-259 connector. Easy to assemble (non-kink construction).

Icom Inc.

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Count on us!

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Certificate Number Q14190

Icom Inc. (Japan), is an ISO9001 certification acquired company.

Your local distributor/dealer:



ICOM

## MULTIBAND FM TRANSCEIVERS

**IC-T81A** (U.S.A. version)

**IC-T81E** (Europe version)

### Amazingly compact 4-bander

*The IC-T81A/E multiband transceivers are compact, built tough, offer a wide variety of functions and yet are as simple to operate as single band handhelds.*

### Ultra-compact and water-resistant

The IC-T81A/E includes the 50<sup>\*1</sup>, 144, 430(440) MHz and 1.2 GHz bands and yet is surprisingly compact, measuring only 58(W) × 106(H) × 28.5(D) mm<sup>\*2</sup>. The newly designed power amplifier circuit provides a powerful 5 W<sup>\*3</sup> of output power. And water-resistant (JIS grade 4) means safe operation out of doors.

<sup>\*1</sup>Depending on country; <sup>\*2</sup>2<sup>9</sup>/<sub>32</sub>(W) × 4<sup>3</sup>/<sub>16</sub>(H) × 1<sup>1</sup>/<sub>8</sub>(D) in.;

<sup>\*3</sup>at 13.5 V DC typ. (1 W for 1.2 GHz)

### Multi-function 'joy-stick' switch

A 'joy-stick' style multi-function switch is adopted and can be toggled left/right, up/down or pushed straight on (5-way action). This allows quick and easy changing of bands, volume, set mode contents, etc. Operation is so simple you might be fooled into thinking you're using a single band transceiver rather than a full function, multiband one!



### Wide FM and AM receive modes

Wide FM and AM receive allows you to monitor FM broadcasting and VHF air band\* communications.

<sup>\*</sup>Depending on version.

### Tone squelch standard

Tone squelch and pocket beep functions are standard, providing quiet stand-by. Pocket beep also provides a 'pager-like' function. In addition, a tone scan function is standard, allowing you to determine subaudible tones required to access repeaters.

### Other features

- RIT and VXO functions for 1200 MHz band
- Ni-MH battery standard (depending on version)
- Durable, commercial-grade construction
- 124 memory channels with name capability (except call channels)
- Excellent frequency stability of ± 3 ppm
- Narrow FM capability (Italy and Europe versions)
- Auto repeater function (USA version only)
- Simultaneous charging and operating capability
- PC programmable (optional cloning software and cable are required)
- 9 DTMF memories
- Built-in guide function and more...

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## SPECIFICATIONS

## GENERAL

• Frequency coverage (Unit: MHz)

Version	50 MHz	144 MHz	430(440) MHz	1.2 GHz	WFM**
USA	50-53.995 (Rx only)	Rx: 118-173.995* Tx: 144-148	Rx: 400-469.995* Tx: 430-450**	1240-1300	76-107.995
Europe, UK	50-52 (Rx only)	144-146	430-440	1240-1300	88-107.995
Italy	50-52 (Rx only)	Rx: 118-173.995* Tx: 144-148	Rx: 400-469.995* Tx: 430-440	1240-1300	88-107.995
Asia	50-53.995 (Rx only)	Rx: 118-173.995* Tx: 144-148	Rx: 400-469.995* Tx: 430-440	1240-1300	76-107.995
General	50-52 (Rx only)	Rx: 118-173.995* Tx: 144-148	Rx: 400-469.995* Tx: 430-440	1240-1300	88-107.995

\*Guaranteed 144-148 MHz only; \*\*Guaranteed 440-450 MHz only;

\*Guaranteed 430-440 MHz only; \*\*Not guaranteed.

- Mode : FM, AM (Rx. only), WFM (Rx. only)
- No. of memory ch. : 124 (100 reg., 20 scan edges, 4 call)
- Frequency stability :  $\pm 3$  ppm ( $-10^{\circ}\text{C}$  to  $+60^{\circ}\text{C}$ )
- Useable temp. range :  $-10^{\circ}\text{C}$  to  $+60^{\circ}\text{C}$ ;  $+14^{\circ}\text{F}$  to  $+140^{\circ}\text{F}$
- Power supply : 4.5 to 16 V DC or specified battery pack
- Current drain (at 13.5 V DC):
  - Tx max. power : 1.4 A (0.8 A at 1200 MHz)
  - Rx rated audio power saved standby : 220 mA
  - power saved standby : 40 mA
  - 70 mA (90 mA at 1200 MHz)
- Tuning steps (kHz) : 5\*, 10, 12.5, 15\*, 20, 25, 30, 50, 100

\*Not available for 1200 MHz band.

- Antenna connector : SMA (50  $\Omega$ )
- Dimensions : 58(W) $\times$ 106(H) $\times$ 28.5(D) mm (projections not included) 2 $\frac{3}{32}$ (W) $\times$ 4 $\frac{1}{16}$  $\times$ 1 $\frac{1}{8}$ (D) in
- Weight (approx. w/ant.) : 290 g; 10.2 oz (w/BP-197)  
270 g; 9.5 oz (w/BP-199)  
280 g; 9.9 oz (w/BP-200)

## TRANSMITTER

- Output power : High 5.0 W (1.0 W at 1200 MHz) (at 13.5 V DC) Low 0.5 W (0.1 W at 1200 MHz)
- Modulation system : Variable reactance freq. modulation
- Spurious emissions : Less than  $-60$  dB ( $-50$  dB for Europe version at 1200 MHz;  $-40$  dB for others at 1200 MHz)
- Max. freq. deviation :  $\pm 5$  kHz
- Ext. MIC connector : 3-conductor 2.5 (d) mm ( $\frac{1}{8}$ "/2 k $\Omega$ )

## RECEIVER

- Receive system : Double conversion superheterodyne
- Intermediate freq. : 1st 69.45 MHz (13.35 MHz: WFM)  
2nd 450 kHz

• Sensitivity\* (except spurious points):

	50 MHz	144 MHz	430(440) MHz	1.2 GHz	91.5 MHz
FM	0.18 $\mu\text{V}$	0.18 $\mu\text{V}$	0.18 $\mu\text{V}$	0.25 $\mu\text{V}$	—
AM	0.56 $\mu\text{V}$	—	—	—	—
WFM	—	—	—	—	2.0 $\mu\text{V}$

\*FM, WFM measured at 12 dB SINAD; AM measured at 10 dB S/N

- SQL sensitivity (threshold) : 0.18  $\mu\text{V}$  (FM: 0.25  $\mu\text{V}$  at 1200 MHz)  
5.6  $\mu\text{V}$  (WFM)  
0.56  $\mu\text{V}$  (AM)
- Selectivity (except WFM) : More than 15 kHz/9 dB  
Less than 30 kHz/60 dB
- Spurious and image rejection ratio:
  - 50, 144 MHz : Less than  $-60$  dB
  - 430(440) MHz : Less than  $-50$  dB
  - 1200 MHz : Less than  $-50$  dB
 (except half IF, 2nd image, 50 MHz band IF and WFM)
- Audio output power : 250 mW typ. at 10% distortion/8  $\Omega$  load (at 13.5 V DC)

## Supplied accessories

- Battery pack/case\*
- Antenna
- Wall charger\*
- Belt clip
- \*depending on version

## OPTIONS

## BATTERY PACKS AND CASE

BP-197	BP-198	BP-199	BP-200
R6(AA)	Ni-MH	Ni-MH	Ni-MH
batteries $\times$ 3	4.8 V/700 mAh	6.0 V/700 mAh	9.6 V/680 mAh



Approx output powers and operating times (Tx high : Rx: Stand-by=5: 5: 90)

BATTERY PACK	OUTPUT POWER	BATTERY LIFE
BP-198	1 W (0.3 W) typical	6 hrs.
BP-199	1.5 W (0.5 W) typical	5 hrs.
BP-200	4 W (0.5 W) typical	4 hrs.

\*1200 MHz

## LC-148 CARRYING CASE



Helps protect the transceiver from scratches, etc. Fits any battery pack.

## HS-85 HEAD SET



Allows you hands-free operation. Includes VOX, PTT, "one-touch PTT" (TOT).

## BC-119 DESKTOP CHARGER + AD-87 DESKTOP CHARGER ADAPTER



Rapidly charges battery packs BP-198, BP-199 or BP-200. Both AC (using an AC adapter) and DC can be used to power the charger. The AD-88 must be purchased separately.

## SPEAKER-MICROPHONES



HM-46 : Compact and lightweight. Equipped with an earphone jack.

HM-54 : Durable, full-sized speaker-microphone.

HM-75A : Allows you to remotely select memory channels operating frequency, etc. Simple remote and normal remote are selectable.

CP-12/L CIGARETTE LIGHTER CABLE WITH NOISE FILTER  
OPC-254/L DC POWER CABLE

Allows you to operate the transceiver through a 12 V cigarette lighter socket or a 4.5 to 16 V external DC power supply with the CP-12L or OPC-254L, respectively. The connected battery pack is charged simultaneously (13.5 to 16 V necessary).

## SP-13 EARPHONE



Provides clear audio in noisy environments.

## BC-110A/C/D/V WALL CHARGER

Regularly charges battery packs. The same as supplied with some versions.

CS-T81 CLONING SOFTWARE + OPC-478 CLONING CABLE  
Provides quick and easy programming of memory channels, memory names and set mode contents, for local repeater frequencies, etc.

OPC-474 CLONING CABLE  
Used for handheld-to-handheld data cloning.

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Certificate Number Q14190

Your local distributor/dealer:

Icom Inc. (Japan), is an  
ISO9001 certification  
acquired company.





144 MHz FM TRANSCEIVER

# IC-2100H



## SELECTABLE GREEN OR AMBER DISPLAY



Get easy viewing in any lighting condition, or just give your car a great customized instrumentation look.



## Durable 2 m rig with superior RX IMD, performance.

### Superior performance and features

Improved receiver IMD helps provide protection from excessively strong signals such as pager signals. And the squelch attenuator (approx. 10 dB) allows you to reduce interference from strong nearby signals—a winning combination for receiver performance.

### 55 W\* of output power

Be heard! 55 W of transmit power pushes your DX'ing capabilities out further. Power down to 10 W or 5 W as needed—the IC-2100H gives you 3 power selections to choose from.

\*10 W and 5 W only are available for the IC-2100-T.

### Easy to use

The oversized tuning dial is easy to grab while on the move and the large backlit display clearly provides key information at a glance. Memory channels can be assigned names for easy recognition and keys access functions directly—no secondary function key.

### Commercial grade, rugged construction

Land mobile durability! A one piece, die-cast aluminum chassis helps keep operating temperatures down and provides reliable operation even at high duty cycles.

### Tone squelch standard

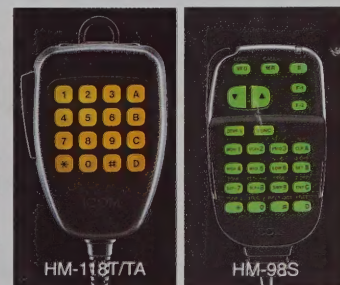
The built-in tone squelch system provides 50 independently programmable tone frequencies for both repeater and tone squelch use. Pocket beep and tone scan functions are additionally provided.

### And more...

- FM narrow mode switchable (Europe and Italy versions only)
- PC ready—all memory channel and set mode contents can be programmed via a PC or another IC-2100H quickly and easily
- Backlit microphones optionally available\*

\*Standard with some versions.

- Optional HM-90 provides wireless remote capability
- 14 channels for 16-digit DTMF codes (w/HM-98S or HM-90)
- Total of 113 memory channels
- Selectable squelch delay



Icom Inc.



## SPECIFICATIONS

## GENERAL

- Frequency range (MHz) and supplied microphones:

Version	Receive	Transmit	Supplied mic.
USA	136-174*	144-148	HM-98S
Europe	144-146	144-146	HM-97
Italy	136-174*	144-148	HM-97
Asia	136-174*	144-148	HM-118
Latin America	136-174*	144-148	HM-118T
IC-2100-T (Thailand)	144-146	144-146	HM-118T
Taiwan	144-146	144-146	HM-98S

\*Guaranteed 144-148 MHz only.

- Mode : FM
- No. of memory channels : 113 (incl. 3 pairs of scan edges, 3 log, 3 repeater and 1 call channel)
- Usable temperature range : -10°C to +60°C; +14°F to +140°F
- Frequency stability : ±10 ppm (-10°C to +60°C)
- Power supply requirements : 13.8 V DC ±15% (negative ground)
- Current drain (at 13.8 V DC) : Receive standby 0.8 A  
max. audio 1.0 A  
Transmit at 55 W 12.0 A
- Antenna connector : SO-239 (50 Ω)
- Dimensions (proj. not included) : 140(W) × 40(H) × 180(D) mm  
5½(W) × 1½(H) × 7½(D) in
- Weight (approx.) : 1.2 kg; 2 lb 10 oz

## TRANSMITTER

- Output power : 55 W\*, 10 W, 5 W selectable\*\*  
\*25, 10 and 5 W for the Taiwan version.  
\*\*10 and 5 W only for the IC-2100-T.
- Maximum frequency deviation : ±5.0/±2.5\* kHz \*Europe and Italy versions only
- Spurious emissions : Less than -60 dB
- Microphone connector : 8-pin modular (600 Ω)

## RECEIVER

- Receive system : Double-conversion superheterodyne
- Intermediate frequencies : 1st 15.65 MHz 2nd 450 kHz
- Sensitivity (at 12 dB SINAD) : Less than 0.18 μV
- Squelch sensitivity (threshold) : Less than 0.13 μV
- Selectivity (wide/narrow) : More than 12/6\* kHz at -6 dB  
Less than 28/18\* kHz at -60 dB
- \*Europe and Italy versions only
- Spurious and image rejection : More than 60 dB
- Intermodulation rejection ratio : More than 70 dB
- Audio output power (at 13.8 V DC) : More than 2.4 W at 10% distortion with an 8 Ω load

## Supplied accessories

- Hand microphone
- Mobile mounting bracket kit
- DC power cable
- Spare fuse

All stated specifications are subject to change without notice or obligation.

## OPTIONS

## ■ HAND MICROPHONES

- HM-118**  
Regular hand microphone.
- HM-118T/TA**  
DTMF microphones with keypad backlighting.
- HM-79, HM-97**  
Have a tone call function.
- HM-98S**  
Remote control microphone with keypad backlighting.

## ■ WIRELESS REMOTE ACCESSORIES

- HM-90** WIRELESS MICROPHONE  
Infrared, full remote control microphone.
- EX-1759** INFRARED RECEIVER  
Used to receive control signals from the HM-90.
- EX-1513** INFRARED SUB RECEIVER  
Extends the remote controllable area.
- BC-96** MICROPHONE HOLDER  
Holds the HM-90 in a convenient place and supplies power to the charging circuit of the HM-90.
- CP-13L** CIGARETTE LIGHTER CABLE WITH NOISE FILTER  
**OPC-288/L** DC POWER CABLE  
Supply power to the BC-96 for charging the Ni-Cd batteries inside the HM-90.

## ■ OTHER ACCESSORIES

- CS-2100** CLONING SOFTWARE  
+ **OPC-478** CLONING CABLE  
For quick and easy programming of memories, etc.
- HS-62** FLEXIBLE MOBILE MICROPHONE  
+ **HS-15B** SWITCH BOX  
+ **OPC-589** ADAPTER CABLE  
For all-around mobile operation.
- SP-10/SP-12** EXTERNAL SPEAKERS
- OPC-440/OPC-647** MIC EXTENSION CABLES  
OPC-440: 5.0 m (16.4 ft); OPC-647: 2.5 m (8.2 ft)
- OPC-441** SPEAKER EXTENSION CABLE
- OPC-346/OPC-347** DC POWER CABLES
- MB-17A** MOBILE MOUNTING BRACKET
- OPC-474** CLONING CABLE (between transceivers)



HM-118

HM-118T/TA

HM-98S

HM-97



SP-12

SP-10

MB-17A

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Your local distributor/dealer:



# IC-207H

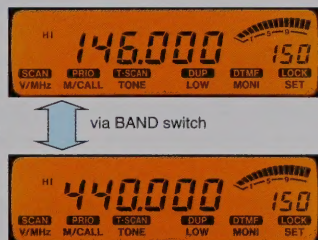


Photo shows separate operation using the optional OPC-600/601.

## Dual band features at a single band price.

### Switchable dual bander

The IC-207H provides dual band capabilities (one band at a time) via a band switching system. To ensure simple operation, the band can be selected with a large, independent "BAND" switch, while the ample-sized display shows only the selected operating frequency for easy recognition.



### Detachable and compact front panel

The front panel can be easily separated from the main unit using the optional OPC-600 or OPC-601 SEPARATION CABLES. Its compact dimensions of 110(W)×40(H)×28.3(D)mm,\* allow installation almost anywhere in a wide variety of vehicle types. \*4<sup>11</sup>/<sub>32</sub>(W)×1<sup>1</sup>/<sub>16</sub>(H)×1<sup>1</sup>/<sub>8</sub>(D) in.

### "Soft keys"

Switch labels are displayed on the LCD for easy visibility even during night operation.

### Tone squelch standard

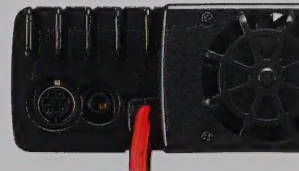
A separate CTCSS tone encoder and CTCSS tone decoder are standard and provide 50 independently programmable tone frequencies for repeater and tone squelch use, respectively. Additionally, tone scan and pocket beep functions are available.



The HM-98 in the above photo is optional for some versions.

### 9600 bps packet operation

A mini DIN 6 connector is located on the rear panel for direct connection to a packet modem. Packet speeds up to 9600 bps are supported.



### And more...

- The optional HM-90 WIRELESS MICROPHONE provides convenient wireless operation of transceiver functions
- Built-in duplexer
- 4 selectable RF output powers—up to 50 W (VHF); up to 35 W (UHF)
- Total of 182 memory channels (150 for regular, 10 each for VHF/UHF scratch pads, 10 for scan edges and 2 for call channels) are available
- Most functions can be controlled from the supplied hand microphone (except some versions)
- RF attenuator linked to the squelch control
- Ultra high speed scans
- Auto repeater function (USA version only)



## SPECIFICATIONS

## GENERAL

- Frequency coverage : (Unit: MHz)

Version	VHF	UHF
U.S.A.	Tx: 144-148 Rx: 118-174**	440-450
Europe	144-146	430-440
Italy	144-146	430-434, 435-438
Asia	Tx: 144-148 Rx: 136-174**	430-440
Taiwan	144-146	430-440

\*\* Guaranteed 144-148

- Mode : FM, AM\*  
\*U.S.A. version, RX only; 118-136 MHz; not guaranteed
- Number of memory channels : 182 (150 reg., 2 call, 10 scan edges and 20 scratch pads)
- Antenna connector : SO-239 (50  $\Omega$ )
- Power supply requirement : 13.8 V DC  $\pm$ 15%
- Usable temperature range : -10°C to +60°C; +14°F to +140°F
- Frequency stability :  $\pm$ 10 ppm
- Tuning step increments : 5, 10, 12.5, 15, 20, 25, 30, 50 kHz and 1 MHz
- Current drain (at 13.8 V DC) : Receive squelched 0.8 A  
max. audio output 1.0 A  
Transmit at high power VHF 12 A  
UHF 11 A
- Dimensions : 140(W)  $\times$  40(H)  $\times$  185.4(D) mm  
5 1/2(W)  $\times$  1 1/8(H)  $\times$  7 1/8(D) in
- Weight : Approx. 1.17 kg; 2.6 lb.

## TRANSMITTER

- Output power : VHF 50 W, 20 W, 10 W, 5 W selectable  
UHF 35 W, 20 W, 10 W, 5 W selectable  
VHF/UHF 25 W, 15 W, 10 W, 5 W for the Taiwan version
- Max. frequency deviation :  $\pm$ 5.0 kHz
- Spurious emissions : Less than -60 dB
- Microphone connector : 8-pin modular jack (600  $\Omega$ )

## RECEIVER

- Receive system : Double conversion superheterodyne
- Intermediate frequencies : 1st 46.05 MHz 2nd 450 kHz
- Sensitivity : Less than 0.18  $\mu$ V for 12 dB SINAD
- Squelch sensitivity : 0.13  $\mu$ V (at threshold)
- Selectivity : More than 12 kHz/-6 dB  
Less than 30 kHz/-60 dB
- Spurious rejection ratio : More than 60 dB
- Audio output (at 13.8 V DC) : More than 2.0 W at 10% distortion with an 8  $\Omega$  load
- Ext. speaker connector : 2-conductor 3.5 (d) mm (1/8")/8  $\Omega$

## Supplied accessories:

- Hand microphone • Mobile mounting bracket kit  
• DC power cable • Spare fuse

All stated specifications are subject to change without notice or obligation.

## OPTIONS

## ■ SEPARATION ACCESSORIES

- **OPC-600/601** SEPARATION CABLE  
For operation with the front panel detached.  
OPC-600: 3.5 m (11.5 ft); OPC-601: 7.0 m (23.0 ft)
- **MB-58** REMOTE CONTROLLER BRACKET  
Mounts the remote controller in a convenient location for operation with the front panel detached.
- **MB-65** REMOTE CONTROLLER BRACKET  
Mounts the remote controller with the MB-58. Adjustable angle and direction for optimum positioning.
- **OPC-346/OPC-347** DC POWER CABLE  
Has a 20 A capacity and a length of 3/7 m (9.8/23 ft).
- **OPC-440/647** MIC EXTENSION CABLE  
OPC-440: 5.0 m (16.4 ft); OPC-647: 2.5 m (8.2 ft)
- **OPC-441** SPEAKER EXTENSION CABLE  
5.0 m (16.4 ft)

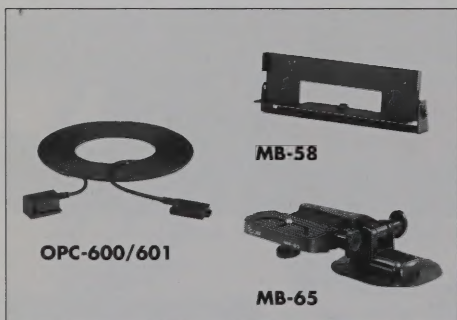
## ■ WIRELESS REMOTE ACCESSORIES

- **HM-90** WIRELESS MICROPHONE  
Infrared, full remote control microphone. Wired remote control is also possible.
- **EX-1759** INFRARED RECEIVER  
Used to receive control signals from the HM-90.
- **EX-1513** INFRARED SUB RECEIVER  
Used to with the EX-1759 to extend the controllable area.

## ■ OTHER ACCESSORIES

- **CS-207** CLONING SOFTWARE  
+ **OPC-646** CLONING CABLE  
For quick and easy programming of memories, etc.
- **HAND MICROPHONES**  
**HM-95** (w/DTMF), **HM-97** (w/tone call) and **HM-98** (remote control)
- **HS-62** FLEXIBLE MOBILE MICROPHONE  
+ **HS-155B** SWITCHBOX  
+ **OPC-589** ADAPTER CABLE  
For all-around mobile operation.
- **MB-17A** MOBILE MOUNTING BRACKET
- **SP-10** EXTERNAL SPEAKER

IC-CSW 207/2010 30.95  
IC-OPC 646 89.95  
120.90



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Certificate Number Q14190

Icom Inc. (Japan), is an ISO9001 certification acquired company.

Your local distributor/dealer:





144 MHz FM TRANSCEIVER

# IC-2100H

## SELECTABLE GREEN OR AMBER DISPLAY



Get easy viewing in any lighting condition, or just give your car a great customized instrumentation look.



## Durable 2 m rig with superior RX IMD, performance.

### Superior performance and features

Improved receiver IMD helps provide protection from excessively strong signals such as pager signals. And the squelch attenuator (approx. 10 dB) allows you to reduce interference from strong nearby signals—a winning combination for receiver performance.

### 55 W\* of output power

Be heard! 55 W of transmit power pushes your DX'ing capabilities out further. Power down to 10 W or 5 W as needed—the IC-2100H gives you 3 power selections to choose from.

\*10 W and 5 W only are available for the IC-2100-T.

### Easy to use

The oversized tuning dial is easy to grab while on the move and the large backlit display clearly provides key information at a glance. Memory channels can be assigned names for easy recognition and keys access functions directly—no secondary function key.

### Commercial grade, rugged construction

Land mobile durability! A one piece, die-cast aluminum chassis helps keep operating temperatures down and provides reliable operation even at high duty cycles.

### Tone squelch standard

The built-in tone squelch system provides 50 independently programmable tone frequencies for both repeater and tone squelch use. Pocket beep and tone scan functions are additionally provided.

### And more...

- FM narrow mode switchable (Europe and Italy versions only)
- PC ready—all memory channel and set mode contents can be programmed via a PC or another IC-2100H quickly and easily
- Backlit microphones optionally available\*

\*Standard with some versions.

- Optional HM-90 provides wireless remote capability
- 14 channels for 16-digit DTMF codes (w/HM-98S or HM-90)
- Total of 113 memory channels
- Selectable squelch delay



Icom Inc.



## SPECIFICATIONS

## GENERAL

- Frequency range (MHz) and supplied microphones:

Version	Receive	Transmit	Supplied mic.
USA	136-174*	144-148	HM-98S
Europe	144-146	144-146	HM-97
Italy	136-174*	144-148	HM-97
Asia	136-174*	144-148	HM-118
Latin America	136-174*	144-148	HM-118T
IC-2100-T (Thailand)	144-146	144-146	HM-118T
Taiwan	144-146	144-146	HM-98S

\*Guaranteed 144-148 MHz only.

- Mode : FM
- No. of memory channels : 113 (incl. 3 pairs of scan edges, 3 log, 3 repeater and 1 call channel)
- Usable temperature range : -10°C to +60°C; +14°F to +140°F
- Frequency stability : ±10 ppm (-10°C to +60°C)
- Power supply requirements : 13.8 V DC ±15% (negative ground)
- Current drain (at 13.8 V DC) : Receive standby 0.8 A  
max. audio 1.0 A  
Transmit at 55 W 12.0 A
- Antenna connector : SO-239 (50 Ω)
- Dimensions (proj. not included) : 140(W) × 40(H) × 180(D) mm  
5½(W) × 1⅞(H) × 7½(D) in
- Weight (approx.) : 1.2 kg; 2 lb 10 oz

## TRANSMITTER

- Output power : 55 W\*, 10 W, 5 W selectable\*<sup>2</sup>  
\*25, 10 and 5 W for the Taiwan version.  
\*10 and 5 W only for the IC-2100-T.
- Maximum frequency deviation : ±5.0±2.5\* kHz \*Europe and Italy versions only
- Spurious emissions : Less than -60 dB
- Microphone connector : 8-pin modular (600 Ω)

## RECEIVER

- Receive system : Double-conversion superheterodyne
- Intermediate frequencies : 1st 15.65 MHz 2nd 450 kHz
- Sensitivity (at 12 dB SINAD) : Less than 0.18 μV
- Squelch sensitivity (threshold) : Less than 0.13 μV
- Selectivity (wide/narrow) : More than 12/6\* kHz at -6 dB  
\*Europe and Italy versions only Less than 28/18\* kHz at -60 dB
- Spurious and image rejection : More than 60 dB
- Intermodulation rejection : More than 70 dB
- Audio output power (at 13.8 V DC) : More than 2.4 W at 10% distortion with an 8 Ω load

- Supplied accessories**
- Hand microphone
  - Mobile mounting bracket kit
  - DC power cable
  - Spare fuse

All stated specifications are subject to change without notice or obligation.

## OPTIONS

## ■ HAND MICROPHONES

- HM-118**  
Regular hand microphone.
- HM-118T/TA**  
DTMF microphones with keypad backlighting.
- HM-79, HM-97**  
Have a tone call function.
- HM-98S**  
Remote control microphone with keypad backlighting.

## ■ WIRELESS REMOTE ACCESSORIES

- HM-90 WIRELESS MICROPHONE**  
Infrared, full remote control microphone.
- EX-1759 INFRARED RECEIVER**  
Used to receive control signals from the HM-90.
- EX-1513 INFRARED SUB RECEIVER**  
Extends the remote controllable area.
- BC-96 MICROPHONE HOLDER**  
Holds the HM-90 in a convenient place and supplies power to the charging circuit of the HM-90.
- CP-13L CIGARETTE LIGHTER CABLE WITH NOISE FILTER**  
**OPC-288/L DC POWER CABLE**  
Supply power to the BC-96 for charging the Ni-Cd batteries inside the HM-90.

## ■ OTHER ACCESSORIES

- CS-2100 CLONING SOFTWARE**  
+ **OPC-478 CLONING CABLE**  
For quick and easy programming of memories, etc.
- HS-62 FLEXIBLE MOBILE MICROPHONE**  
+ **HS-15B SWITCH BOX**  
+ **OPC-589 ADAPTER CABLE**  
For all-around mobile operation.
- SP-10/SP-12 EXTERNAL SPEAKERS**
- OPC-440/OPC-647 MIC EXTENSION CABLES**  
OPC-440: 5.0 m (16.4 ft); OPC-647: 2.5 m (8.2 ft)
- OPC-441 SPEAKER EXTENSION CABLE**
- OPC-346/OPC-347 DC POWER CABLES**
- MB-17A MOBILE MOUNTING BRACKET**
- OPC-474 CLONING CABLE** (between transceivers)



HM-118

HM-118T/TA

HM-98S

HM-97



MB-17A

SP-12

SP-10

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Your local distributor/dealer:



The ICOM logo, featuring a stylized 'O' with a dot above it, followed by the word 'ICOM' in a bold, sans-serif font.

144 MHz FM TRANSCEIVER

# IC-T2H



## *More than enough power...*

### **6 W\* of transmit power and 500 mW\* of audio output**

The IC-T2H provides a powerful 6 W\* of RF output power with the supplied Ni-Cd battery pack. More than enough for long distance communications. And on the receiving side a generous 500 mW\* of audio is emitted for clear reception even in noisy operating environments.

\*Typical at 9.6 V DC.

### **Commercial grade durability**

Built tough. The IC-T2H is designed and constructed to deliver reliable performance under demanding conditions.

### **Tone squelch standard**

The built-in tone squelch system provides quiet standby (the squelch only opens for calls directed to you) as well as pocket beep and tone scan functions. Pocket beep provides a method of keeping track of calls directed to you (like a 'common' pager) and tone scan allows you to detect subaudible tone frequencies that are needed to open a repeater, etc.

### **Easy operation with customizable keys**

Default key functions have been assigned with ease of operation in mind. However, eight keys on the keypad are customizable allowing you to assign functions to them other than the defaults. This can be performed via cloning or directly from the keypad.

### **DTMF encoder with memory channels**

A DTMF encoder with 5 DTMF memory channels is built-in—DTMF codes of up to 32 characters can be stored. And an automatic re-dial function provides simple operation for autopatching, etc.

### **Cloning capabilities**

Cloning between handhelds or between handheld and PC provide quick and easy transfer of settings. An OPC-474 CLONING CABLE is required for transceiver-to-transceiver cloning and an OPC-478 CLONING CABLE plus the CS-T2 CLONING SOFTWARE is required for PC-to-transceiver cloning.

### **Other outstanding functions**

- Guide function for quick reference to key functions
- LCD backlight with timer
- 40 memory channels available
- 2-step power saver function increase battery life
- Automatic repeater function (USA version only)
- Microphone simple remote control function (optional HM-75A required)
- Monitor function
- Lock function
- 10 weather channels (USA version only)
- ANI (Automatic Number Identification) function\*

\*Available for some versions only.

**Icom Inc.**



## SPECIFICATIONS

## GENERAL

## • Frequency coverage:

Version	Transmit	Receive
USA	144-148 MHz	136-174 MHz*
Europe	144-146 MHz	144-146 MHz
Italy	144-148 MHz	136-174 MHz*
Asia, S. America	144-148 MHz	136-174 MHz*

\*Guaranteed range: 144-148 MHz

- Mode : FM
- No. of memory ch. : 43 (incl. 2 scan edges and 1 call)
- Frequency stability :  $\pm 10$  ppm ( $0^{\circ}\text{C}$  to  $+50^{\circ}\text{C}$ )
- Operating temperature range:  $-10^{\circ}\text{C}$  to  $+60^{\circ}\text{C}$ ;  $+14^{\circ}\text{F}$  to  $+140^{\circ}\text{F}$
- Power supply requirement: (negative ground) 9.6 V DC (supplied Ni-Cd cells)
- Current drain (at 9.6 V DC):
  - Tx at 6.0 W 1.6 A (typical)
  - at 1.0 W 0.7 A (typical)
  - Rx max. audio 210 mA (typical)
  - standby 80 mA (typical)
  - power saved 25 mA (typical/1 : 4)
- Antenna connector : BNC (50  $\Omega$ )

- Dimensions : 58(W) $\times$ 140.5(H) $\times$ 32.3(D) mm;  
(proj. not incl.) 2 $\frac{3}{32}$ (W) $\times$ 5 $\frac{17}{32}$ (H) $\times$ 1 $\frac{9}{32}$ (D) in
- Weight (approx.) : 420g; 14.8 oz (w/ant. and battery)

## TRANSMITTER

- Output power : High 6.0 W (typical)  
(at 9.6 V DC) Low 1.0 W (typical)
- Modulation : Variable reactance frequency modulation
- Spurious emissions : Less than  $-60$  dB
- Max. freq. deviation :  $\pm 5.0$  kHz
- Ext. mic. connector : 3-conductor 2.5 (d) mm ( $\frac{1}{16}$ ")  
/2 k $\Omega$

## RECEIVER

- Receiver system : Double conversion super-heterodyne
- Intermediate freq. : 1st 30.85 MHz  
2nd 450 kHz
- Sensitivity : 0.14  $\mu\text{V}$  (typ.; for 12 dB SINAD)
- Squelch sensitivity : 0.16  $\mu\text{V}$  (typ.; threshold)

- Selectivity : More than 15 kHz/ $-9$  dB  
Less than 30 kHz/ $-60$  dB
- Spurious and image rejection: 60 dB (typical)  
(More than  $-45$  dB: half image point, except 2nd image)
- Audio output power : 500 mW typical with an 8  $\Omega$   
(at 9.6 V DC) load
- Ext. SP connector : 3-conductor 3.5 (d) mm ( $\frac{1}{8}$ ")  
/8  $\Omega$

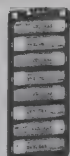
## Supplied accessories

- Battery case with Ni-Cd cells\* • Wall charger\*
- Antenna • Belt clip \*depending on version

All stated specifications are subject to change without notice or obligations.

## OPTIONS

## BATTERY PACKS AND CASE

BP-194  
R6 (AA)  
batteries $\times$ 8\*BP-195  
9.6 V/700 mAhBP-196  
9.6 V/1050 mAh

\*Ni-Cd cells in BP-194 BATTERY CASE must be purchased separately.  
Approx output powers and operating times (Tx (high) : Rx: Stand-by=1 : 1 : 8)

BP-194 (w/Ni-Cd cells)	BP-195	BP-196
6.0 W/3.7 h	6.0 W/3.7 h	6.0 W/5.5 h

BC-119 DESKTOP CHARGER  
+ AD-81 DESKTOP CHARGER  
ADAPTER

Rapidly charges battery packs BP-195 or BP-196. Installed Ni-Cd cells cannot be charged via supplied BP-194 BATTERY CASE. Both AC (using an AC adapter) and DC can be used to power the charger. The AD-81 must be purchased separately.

## SPEAKER-MICROPHONES



HM-46 : Compact and lightweight. Equipped with an earphone jack.  
HM-54 : Durable, full-sized speaker-microphone.  
HM-75A : Allows you to remotely select memory channels operating frequency, etc. Simple remote and normal remote are selectable.

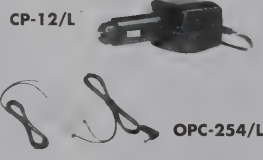
LC-145 CARRYING  
CASE

Helps protect the transceiver from scratches, etc. Fits any battery pack.

## HS-51 HEAD SET



Allows you hands-free operation. Includes VOX, PTT, "one-touch PTT" (TOT).

CP-12/L CIGARETTE LIGHTER  
CABLE WITH NOISE FILTER  
OPC-254/L DC POWER CABLE

Allows you to charge the connected battery pack (13.5 to 16 V DC required). For charging ONLY—the transceiver cannot be simultaneously operated.

## SP-13 EARPHONE



Provides clear audio in noisy environments.

BC-110A/D/V WALL CHARGER  
Standard wall charger. The same as supplied with some versions.  
CS-T2 CLONING SOFTWARE  
+ OPC-478 CLONING CABLE  
Provides quick and easy programming of memory channels, memory names and set mode contents, for local repeater frequencies, etc., via an IBM compatible PC.  
OPC-474 CLONING CABLE  
Used for handheld-to-handheld data cloning.  
MB-68 BELT CLIP  
Attaches the transceiver to your belt. Same as supplied.  
BC-133 BATTERY CHARGER  
Regularly charges a battery back with/without transceiver.

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HF/VHF ALL MODE TRANSCEIVER

# IC-746

**HF + 50 MHz + 144 MHz**  
100w                      100w                      100w



Icom Inc.



# ICOM INNOVATION AND TECH

LOOKING FOR ONE RIG TO SATISFY ALL YOUR BASE STATION NEEDS? FEATURES, SUPERIOR PERFORMANCE OVER A WIDE FREQUENCY RANGE



## HF + 6 m + 2 m band coverage

The IC-746 offers all mode operation (SSB, CW, RTTY, AM and FM) on the amateur HF (1.8–28 MHz), 50 MHz and 144 MHz bands. In addition, a wide frequency coverage receiver provides continuous coverage from 30 kHz to 60 MHz and 108–174 MHz.\*

\*Specifications guaranteed 1.8–29.990 MHz, 50–54 MHz and 144–148 MHz only.

## 100 W output for all bands

100 W of output power is available on all bands—HF, 50 MHz and 144 MHz, making the IC-746 a practical choice for all-round base station use. The aluminum, die-cast chassis and large cooling fan help to stabilize the PA circuit, providing 100%, full duty cycle operation.

## DSP functions standard

DSP digitally transposes receive audio components in all modes of operation to produce desired AF frequency character-

istics at the IF stage (15.625 kHz) of the transceiver. This built-in DSP provides the following functions.

- ◆ *Noise reduction*—reduces various types of noise and enhances receive signal components only.
- ◆ *Automatic notch filter*—automatically reduces single beat interference and protects the receive voice signals. The notch frequency adjusts automatically to the interfering beat frequency.
- ◆ *Selectable APF*—a total of 3 passband widths are selectable from 80 Hz, 160 Hz and 320 Hz, for super-narrow filter APF functions in CW mode. The APF center frequency is adjustable.

## Large, multi-function LCD

Designed for ease-of-use and optimum readability in any lighting condition. Operating frequency, memory channel number, function settings and digital meter readouts are indicated. In addition, the following items can be displayed in the multi-function, dot-matrix portion of the LCD:

## HF/VHF ALL MODE TRANSCEIVER IC-746

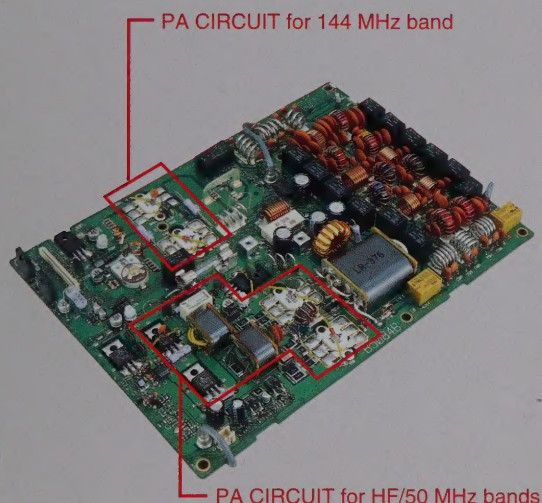
- ◆ *Band scope*—provides a convenient visual indication of band conditions around a displayed frequency
- ◆ *Memory names*—up to 9 characters can be conveniently assigned to memories
- ◆ *Key assignments*—indicates functions assigned to the multi-function switches
- ◆ *Twin PBT settings*—display passband widths and passband location against the Rx frequency
- ◆ *Split frequency*—Rx or Tx frequency\* is displayed during split operation  
\*Depending on condition (transmit or receive)
- ◆ *Memory keyer contents*—displays the contents of the CW memory keyer



# NOLOGY LEADERSHIP...AGAIN!

LOOK NO FURTHER! THE IC-746 OFFERS IF DSP, NEW AND EXCITING FEATURES AND ALL MODE OPERATION AT 100 W (40 W IN AM MODE).

## ● PA UNIT



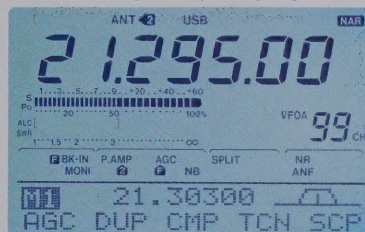
## ● Display example 1— Band scope



## ● Display example 2— Memory names



## ● Display example 3— Dual frequency display



## ● Display example 4— Memory keyer contents



## Twin PBT

This convenient function narrows the IF passband in two stages to eliminate interfering signals. Particularly useful during crowded band conditions such as pileups, contests, etc.

## Versatile filter combinations

Up to 3\* optional crystal filters can be installed, providing a wide variety of filter combinations. Choose a filter combination from the front panel that best suits your operating needs, for example 500 Hz and 250 Hz CW filters.

\*2 filters for 9 MHz IF and 1 for 455 kHz IF stages.

## Digital, multi-function S/Rf meter

This meter provides a variety of useful information. Signal strength is indicated while receiving (S-meter) and RF output, SWR and ALC levels are simultaneously indicated while transmitting. A peak level hold function is available for the S-meter.

## Complete CW functions

CW enthusiasts won't be disappointed. With a built-in 4 channel memory keyer with 50 characters, multi-function electronic keyer, CW pitch control and full break-in (QSK), the IC-746 has it all.

## Tone squelch standard

Tone squelch functions (CTCSS encoder/decoder) are standard with 50 different tone frequencies available.

## Automatic antenna tuner

An automatic antenna tuner is built-in and covers the HF bands to 50 MHz.\* After operating on a band for the first time memories can be preset providing very high speed tuning.

\*Guaranteed for amateur bands only.

## FM narrow capability

The IC-746 lets you take full advantage of this operating style on either the 10 m or 2 m (where narrow FM is required) bands.

## Quick split function

With this function, the offset frequency can be set in advance. Simply push [SPLIT] for 1 sec. to select all necessary settings for split frequency operation.

## Other outstanding features

- Triple band stacking register
- Memo-pad function has up to 10 channels available to temporarily store operating frequencies and modes
- Optional UT-102 VOICE SYNTHESIZER UNIT announces the displayed frequency, operating mode and S-meter level
- IF transmit audio monitor (SSB mode only; AF transmit audio monitor for the other modes)





## SPECIFICATIONS

## GENERAL

Frequency coverage (MHz) :		
Receive	0.030- 60.000*1	108.000-174.000*1
Transmit	1.800- 1.999*2	3.500- 3.999*2
	7.000- 7.300*2	10.100- 10.150
	14.000- 14.350	18.068- 18.168
	21.000- 21.450	24.890- 24.990
	28.000- 29.700	50.000- 54.000*2
	144.000-148.000*2	

\*1except for some frequency ranges

\*2depending on version

- Mode : USB, LSB, CW, RTTY, AM, FM
- No. of memory channels : 102 (99 regular, 2 scan edges and 1 call)
- Frequency stability :
  - Less than  $\pm 7$  ppm from 1 min. to 60 min. after power ON.
  - After that, rate of stability change is less than  $\pm 1$  ppm at  $25^{\circ}\text{C}$  ( $+77^{\circ}\text{F}$ ). Temperature fluctuations ( $0^{\circ}\text{C}$  to  $+50^{\circ}\text{C}$ ;  $+32^{\circ}\text{F}$  to  $+122^{\circ}\text{F}$ ) less than  $\pm 5$  ppm.
- Power supply requirement : 13.8 V DC ( $\pm 15\%$ ; negative ground)
- Current drain (at 13.8 V DC) :
  - Transmit max. power 20.0 A
  - Receive max. audio 2.0 A
  - standby 1.8 A
- Antenna connector : SO-239 $\times$ 3 (2 for HF/50 MHz and 1 for 144 MHz bands; 50  $\Omega$ )
- Dimensions (projections not included) : 287(W) $\times$ 122.5(H) $\times$ 316(D) mm  
11 $\frac{1}{16}$ (W) $\times$ 4 $\frac{1}{8}$ (H) $\times$ 12 $\frac{1}{2}$ (D) in
- Weight (approx.) : 8.9 kg; 19 lb 10 oz

## TRANSMITTER

- Output power : 5-100 W (except AM)  
5-40 W (AM only)
- Modulation system :
  - USB, LSB, AM
  - FM
- Balanced modulation
- Variable reactance modulation
- Spurious emissions :
  - Less than -50 dB (HF)
  - Less than -60 dB (50/144)
- Carrier suppression : More than 40 dB
- Unwanted sideband supp : More than 50 dB
- TX variable range :  $\pm 9,999$  kHz
- Microphone connector : 8-pin (600  $\Omega$ )

## RECEIVER

- Sensitivity (typical) :
  - USB, LSB, CW, RTTY : 0.16  $\mu\text{V}^*$  (1.8-29.990 MHz)  
0.13  $\mu\text{V}^{**}$  (50 MHz)  
0.11  $\mu\text{V}^{**}$  (144 MHz)
  - AM (10 dB S/N) : 13  $\mu\text{V}$  (0.5-1.799 MHz)  
2.0  $\mu\text{V}^{*1}$  (1.8-29.990 MHz)  
1.0  $\mu\text{V}^{*2,3}$  (50/144 MHz)
  - FM (12 dB SINAD) : 0.5  $\mu\text{V}^{*1}$  (28-29.990 MHz)  
0.25  $\mu\text{V}^{*2}$  (50 MHz)  
0.18  $\mu\text{V}^{*3}$  (144 MHz)

\*1Preamp-1 ON, \*2Preamp-2 ON, \*3Preamp ON

- Selectivity :
  - USB, LSB, CW, RTTY : More than 2.1 kHz/-6 dB
  - AM, FM-N : Less than 4.0 kHz/-60 dB
  - FM : More than 9.0 kHz/-60 dB
  - More than 12 kHz/-6 dB
  - Less than 30 kHz/-50 dB
- Squelch sensitivity :
  - USB, LSB, CW, RTTY : Less than 5.6  $\mu\text{V}$
  - FM : Less than 1.0  $\mu\text{V}$
- Spurious and image rejection ratio :
  - (except IF through on 50 MHz) : More than 70 dB (HF, 50 MHz)
  - More than 60 dB (144 MHz)
- RIT variable range :  $\pm 9,999$  kHz
- Audio output power : More than 2.0 W (at 13.8 V DC with an 8  $\Omega$  load)

## Supplied accessories:

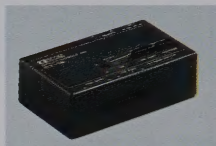
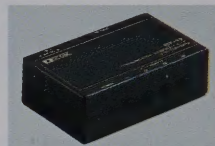
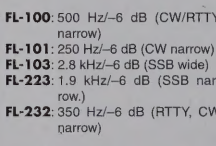
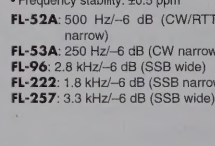
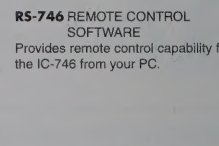
- Hand microphone
- DC power cable
- Spare fuses
- Key plug

All stated specifications are subject to change without notice or obligation.

## OPTIONS



IC-PW1 HF + 50 MHz 1 kW LINEAR AMPLIFIER

AH-4 HF + 50 MHz AUTOMATIC ANTENNA TUNER  
Covers 3.5-54 MHz with a 7 m (23 ft) or longer wire antenna.AH-2b ANTENNA ELEMENT  
A 2.5 m long antenna element for mobile operation with the AH-4. All bands between 7-54 MHz can be matched.PS-85 POWER SUPPLY  
Output: 13.8 V DC (20 A max.)SP-21 EXTERNAL SPEAKER  
Designed for base station operation. Input impedance: 8  $\Omega$ . Max. input power: 5 WSM-20 DESKTOP MICROPHONE  
Unidirectional, electret microphone for base station operation. Includes [UP]/[DOWN] switches and a low cut function.SM-8 DESKTOP MICROPHONE  
Electret, condenser-type desktop microphone including 2 connection cables for simultaneous connection of 2 transceivers. [UP]/[DOWN] switches are included.CT-17 CI-V LEVEL CONVERTER  
For remote transceiver control using a personal computer. You can change frequencies, operating mode, memory channels, etc.CT-16 SATELLITE INTERFACE UNIT  
Easy tuning when connecting another Icom VHF transceiver for instant satellite communications.CR-282 HIGH-STABILITY CRYSTAL UNIT  
Contains a temperature-compensating oven heater and crystal unit for improved frequency stability.  
• Frequency stability:  $\pm 0.5$  ppmUT-102 VOICE SYNTHESIZER UNIT  
Announces operating frequency, mode and S-meter level.HM-36 HAND MICROPHONE  
Same as supplied.9 MHz FILTERS  
Have good shape factor and provide you with better reception.FL-100: 500 Hz/-6 dB (CW/RTTY narrow)  
FL-101: 250 Hz/-6 dB (CW narrow)  
FL-103: 2.8 kHz/-6 dB (SSB wide)  
FL-223: 1.9 kHz/-6 dB (SSB narrow)  
FL-232: 350 Hz/-6 dB (RTTY, CW narrow)455 kHz FILTERS  
Have good shape factor and provide you with better reception.FL-52A: 500 Hz/-6 dB (CW/RTTY narrow)  
FL-53A: 250 Hz/-6 dB (CW narrow)  
FL-96: 2.8 kHz/-6 dB (SSB wide)  
FL-222: 1.8 kHz/-6 dB (SSB narrow)  
FL-257: 3.3 kHz/-6 dB (SSB wide)RS-746 REMOTE CONTROL SOFTWARE  
Provides remote control capability for the IC-746 from your PC.

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Certificate Number Q14190

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acquired company.

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